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TCT@ACC-i2: The Interventional Learning Pathway

IMPACT OF CONTRAST-INDUCED ACUTE KIDNEY INJURY AFTER CORONARY ANGIOGRAPHY OR PERCUTANEOUS CORONARY INTERVENTION ON LONG-TERM OUTCOMES: A POOLED ANALYSIS FROM THE HORIZONS-AMI AND ACUITY TRIALS

Moderated Poster Contributions
Hall C
Saturday, March 29, 2014, 4:15 p.m.-4:30 p.m.

Session Title: TCT@ACC-i2: The Interventional Learning Pathway Moderated Posters IV
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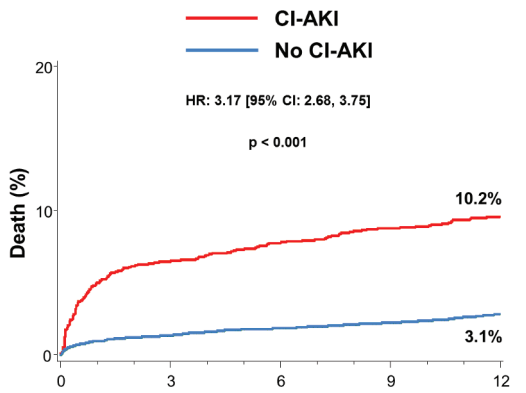
Authors: *Daniele Giacoppo, Roxana Mehran, Sameer Bansilal, Bernhard Witzenbichler, George Dangas, Ajay Kirtane, Helen Parise, Ran Kornowski, Sorin Brener, Philippe Genereux, Gregg Stone, Cardiovascular Research Foundation, New York, NY, USA*

Background: Contrast-induced acute kidney injury (CI-AKI) following percutaneous coronary intervention (PCI) has been associated with higher morbidity and mortality. We examined the relationship of incident CI-AKI with ischemic and bleeding outcomes in a large acute coronary syndrome (ACS) cohort.

Methods: We performed a patient-level pooled analysis of 14,054 patients from the HORIZONS-AMI and ACUITY trials. Patients were stratified in two groups according to incident CI-AKI. One-year ischemic and 30-day bleeding outcomes were compared by log-rank test.

Results: A total of 1,995 patients (14.2%) developed CI-AKI. These patients were older, more frequently diabetic, with pre-existing renal dysfunction and reduced systolic function. MACE (20.3% vs. 12.5%; HR 1.82, 95% CI 1.63-2.03, p < 0.0001), stent thrombosis (2.6% vs. 1.8 %; HR 1.61, 95% CI 1.18, 2.20, p = 0.0053) and mortality after 1 year (10.2% vs. 3.1%; HR 3.17, 95% CI 2.68-3.75, p < 0.0001) were higher in CI-AKI group. Non-CABG major bleeding (11.2% vs. 4.6%; HR 2.66, 95% CI 2.29-3.10, p < 0.0001) and need for transfusion (6.5% vs. 2%,HR 3.51, 95% CI 2.86-4.32, p< 0.0001) at 30 days were increased with CI-AKI. Results were unchanged after multivariable adjustment.

Conclusions: CI-AKI following PCI for ACS is associated with significantly worse ischemic and bleeding outcomes including all-cause mortality. Results were unchanged after multivariable adjustment.



CI-AKI	1995	1828	1799	1775	1269
No CI-AKI	12059	11633	11544	11464	8031